

NPS-USGS Water Quality Partnership Program

2014

National
Panel
Comments
FY2014
Proposals

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Assessment of Potential Contaminants in the Wetlands and Near Shore Waters at American Memorial Park on the Island of Saipan	
CATEGORY: Intensive	PARK: American Memorial Park (AMME)
STATE: Saipan	FY14 COST: \$94,307

Comments:

Very well-articulated project.
More info/specifics on transferability would have been helpful
Matching is <50% of total annual cost, not the percentage presented.
Project support - The total project cost (USGS + partners) = \$475,061, so project support is 34% of TPC.
More articulation of likely/potential human health factors and affects in analogs would help.
Expand the description of how much recreational use this area gets.
Would be helped by more details on management alternatives.
Some additional detail on the results of the several studies listed on page 1, paragraph 2 would be useful.

Organic Wastewater Chemicals from Leaking Sewer Infrastructure in the Anacostia River, Washington, D.C.

CATEGORY: Intensive

PARK: Anacostia PARK (ANAC)

STATE: Washington DC

FY14 COST: \$100,000

Comments:

Technical soundness - the methods are well described. I am not convinced that emerging contaminants are the best tool for finding leaks, given that this environment has many sources and substantial loading of these contaminants. Using a flashlight to find a hole in the pipe would be lower cost and higher certainty.

More non-federal support would have been helpful & question using full cost of equipment in one-time use for this project

Local benefits seem somewhat muted, but maybe would help inform/prioritize new infrastructure?

It appears that the problem of a leaking storm sewer is obvious, so I suggest that the proposal spend more time explaining why simple photographs of the exposed pipe is not sufficient to cause repair or replacement. If indeed the utility managers are so dense, that they need this level of evidence, then their intractability should be a big selling point of the project.

Proposal could have been more concise.

Problem resolution - did the parallel effort in Rock Creek Park result in a positive outcome? Resolution would score higher if it were clear that the appropriate agency would positively take corrective action based on the result.

There are no health guidelines for most of the chemicals to be analyzed, so this is not clearly a human health concern but rather an aquatic biota concern.

Not clear how tidal influences would be dealt with.

Could consider analyzing fewer chemicals and using dye to understand where the sewers are leaking into adjacent streams.

On page 2, paragraphs 2, some DCWSA large projects to reduce effluent flows into the river are described. It is unclear whether these will take the problem sewer out of service; reduce the loading or exactly what the relationship is. Please Clarify.

Use of the infrared cameras looks like a very good and inexpensive tool. Dye tracers and/or a video survey of the sewer might also be cost effective.

Threat - The river clearly has problems, but this sewer is only a contributor to it, so I can only score a 4.

Project support - The total project cost (USGS + partners) = \$364,000, so project support is 18% of TPC.

Good location to better understand and communicate this broader scale problem.

If cooperation exists already with infrastructure agencies, would be helpful to describe likely use of results.

Assessment of Water-Quality Characteristics and Threats to Aquatic Biota in the Big South Fork/New River and Obed River Systems

CATEGORY: Intensive

PARK: Big South Fork & Obed Wild & Scenic River (BISO-OBED)

STATE: TN

FY14 COST: \$65,000

Comments:

Severity of threat - I read most of the threats as real, but not immediate. Can you provide some numbers on the number of oil and gas wells? You say that the park lacks decision support tools; it would be helpful to say how you would use them if you had them (i.e. is there a regulatory, compliance or planning pathway in place, and is the park engaged in this.).

Suggest incorporating use of Aquarius software and its integration in database with other WQ degradation from an uptick in activity likely limited to increased sediment load should be emphasis isolating connections among land use, water quality, aquatic community structure through modeling approach may not be definitive w/only two WQ parameters of general utility; WQ component appears fairly minimal

Project support - This is one of the few proposals that calculate project support correctly!

Problem Definition - not described very well. The body of the proposal states and further implies that there is a lot of existing data; this should be given more emphasis in the criteria. Are the local and state agencies/governments that the park hopes to influence ready to receive the input that the park hopes to provide?

Appears that this is an important issue to the park, but it does not seem to be one of the highest priorities.

I commend the use of existing data with new analytical approaches to analyze them and the use of the data for multiple objectives is also a plus.

I am concerned that the list of key questions on page 3 is very ambitious. To answer these with much certainty and specificity could take many years and a lot of \$\$.

Problem resolution - good as far as it goes, but it would be much stronger if you could say that local/county governments were ready to make changes based on NPS/USGS input. Do you have a good working relationship? Have you cooperated productively in the past?

Really like the concept. Pointing to a scheduled/planned management decision point (EA/EIS) would strengthen the problem resolution.

Analysis of the Combined Effects of Eutrophication and Climate Change on the Kettle-hole Lakes of Cape Cod National Seashore	
CATEGORY: Intensive	PARK: Cape Cod National Seashore (CACO)
STATE: MA	FY14 COST: \$65,000

Comments:

Nice effort to compile existing data.
Criteria 3 - Addressed much better in this proposal than in others.
Criteria 4 - Sentence 8 that refers to enabling legislation, GMP etc. should be included in criteria 1.
Criteria 8 - The value claimed for equipment use looks a bit generous for part-time use and combined with the other support magically push the total above the threshold for 4 points (demonstrating that someone read the criteria).
Better description of possible management actions would help assess utility.
Didn't use \$40k of existing USGS/NPS computers in project support.
My only reservation is that the project seems a bit long and pricy for data analysis.

Water Quality of Streams, Rivers, and Lakes along the Proposed Brooks East Highway, Gates of the Arctic National Park and Preserve	
CATEGORY: Intensive	PARK: Gates of the Arctic National Park and Preserve (GAAR)
STATE: AK	FY14 COST: \$100,000

Comments:

Significance diminished because even though congress specifically expresses the importance of wilderness characterization, it also permits the diminishment of that wilderness by a road right-of-way. Also, criteria 1 does not specifically state that the designated wild and scenic reach of the river is that portion in the park that is likely to be impacted.
Criteria are out of order - switch 4 and 5.
Believe BMPs instituted at Cape Kruzenstern to avoid "tracking" of metal concentrates would alleviate many of the contaminant concerns for the Park. Sediment and fish passage through culverts may be the remaining issue and those impacts may not be all that informative using a water quality monitoring baseline approach - No contaminant migration pathway made clear (metlas) from discussion -Correlation between WQ baseline parameter measurement and expected observable effects on measurements not made clear
Criteria 3 - I like to see this criteria tell why you are prepared to undertake this study; for example that you know the rivers, reaches and wetlands that are likely to be impacted; that you have the equipment and expertise to get access to the sample areas; and that you are efficient in carrying out investigations in this wilderness setting. Also, are there other studies of possible impacts to wildlife and recreational users in this area that would complement this study?
Problem Resolution - It is difficult to assign a high score to this criteria because NPS influence on the road is limited. One thing included in ANILCA but not highlighted in your proposal is that the secretary must consider alternative routes, and this study could inform the selection of those routes. Were this included, I could increase score to 4 or 4.5.

Biogeochemical and Physical Processes Controlling Mercury Methylation and Bioaccumulation in Lake Powell, Glen Canyon National Recreation Area, Utah and Arizona

CATEGORY: Intensive

PARK: Glen Canyon National Recreation Area (GLCA)

STATE: UT

FY14 COST: Not Defined

Comments:

I wonder if the 2014-2016 time frame will work if the relicensing of the power plants is on the same schedule and might be completed before the SIR is done. The USGS publications review has a reputation for taking a LONG time. I suggest if this is funded, an effort be made to move up the schedule toward completion as early as possible in year 3.

p.s. - being able to have input into the relicensing is an excellent benefit and increases the score for criteria's 3 and 4.

Criteria 3 - Most of the text (describing what will be done) is not particularly relevant to the criteria. In this criteria, I would like to hear what you have in place that demonstrates you are ready to do this project, such as the right equipment (research boats and deep-water samplers), expertise, personnel are available, the timing is right, and you have an existing information base to build on.

Important issue but urgency not apparent. Nice that the utility companies are working with the Federal government, but it seems they could also be contributing to this project funding as well.

Criteria 5 and 8 are long. Please try to limit these to 200 words. The personnel descriptions can be shortened and the budget table in criteria 8 already appears elsewhere in the document. You could just say park contribution is 38%, see Table 1a, page 17. By the way, if you could bump the park contribution up just 1% it would change the score from a 2 to a 3.

Occurrence and Distribution of Mercury Contamination in Brook Trout (*Salvelinus fontinalis*) at Great Smoky Mountains National Park: Impacts from Contamination at Differing Elevations and Potential Human Health Implications

CATEGORY: Intensive

PARK: Great Smoky Mountains National Park (GRSM)

STATE: TN-NC

FY14 COST: \$100,091

Comments:

Good, straightforward project.

There was not enough evidence that this was an urgent issue.

Proposal and criteria are concise - thanks.

Nicely written proposal.

There wasn't much collaboration with NPS.

Linking Freshwater Mercury Concentrations in Parks to Risk Factors and Bio-Sentinels: a National-Scale Research and Citizen Science Partnership	
CATEGORY: Intensive	PARK: Multi
STATE: Multi	FY14 COST: \$99,698

Comments:

I see the connection between the ongoing USGS projects with this project, but not sure how this project will provide the NPS with specific tools to address management of NPS lands in terms of Mercury related issues.
Problem Definition - this project does very well by virtue of having just done a multi-park pilot project. This previous work should be highlighted as the first item in this criterion. I view this criterion as saying, "show me that are you ready to do this project."
Collection location, access details, park permits, and archive logistics at 40 parks will be challenging at best!
The multi park nature of this project makes it difficult to score high on criteria 1 and 2 because, in my interpretation, the significance and threat would be averaged over all the parks, therefore scores middle of the range.
The spatial coverage and proposed investigation are commendable and demonstrate sound scientific ideas.
Among the deliverables I do not see a USGS SIR, which I think would create a valuable long-term record of the project.
The scientists proposing the work are well qualified; however, I question the technical soundness of utilizing volunteer samplers given the ease of sample contamination.
I do like the idea of using dragon flies as sentinels as they are ubiquitous and in their larval stages have do not migrate as fish do.

Algal Toxin Occurrence and Distribution at Six National Parks	
CATEGORY: Intensive	PARK: Multi
STATE: Multi	FY14 COST: \$100,000

Comments:

Very important scientific investigation, but the importance to the NPS was not demonstrated. It was not clear that this is a number one priority by NPS.
Goals and objectives are ambitious given stated level of funding.
The "Job Hazard Analysis" is unnecessary, omit and save some paper.
Proposal was not concise and there were too many objectives to reasonably accomplish.
I like the development of the rapid testing methodologies to assist the NPS or citizens to test before they enter a resource.
The threat rating suffers because there are no EPA or State criteria for exposure to this toxin.
I am curious whether water treatment by filtration, chemical, settling or boiling removes the toxin?
Total project cost is \$424,885 (300,000 + 124,885) so Project support is 30.3% (not 41%).

Occurrence, Sources, and Persistence of Endocrine Disrupting Chemicals in Surface-Water Bed Sediment in the Northern Colorado Plateau Network

CATEGORY: Intensive

PARK: Northern Colorado Plateau Network (NCPN)

STATE: AZ-UT-CO

FY14 COST: \$100,073

Comments:

Criteria 3 - good score based on the body of the document, but the text in the criteria is not very helpful. Give greater emphasis to the NPS-EPA sampling. Also, what about the value of having a large number of partners, fresh data, EPA cooperation, and a well-developed working relationship between the NCPN and the parks in place - all provide a very good basis for this project.

Overall approach to problem is a nice integration with I&M work.

Criteria responses don't address guidance specifically, would likely score better if more specific responses.

Management actions could be more specific or better articulated.

This proposal could have been more concise. I like the cooperation among the various Federal entities and rated the urgency high because of the ability to take advantage of USEPA in kind contributions in terms of water chemistry analyses.

I don't think that the number of fish for endocrine biomarker research is sufficient.

Also think the analyses done in fish tissue should be similar to the analyses done for water and bottom sediment samples or drop.

I don't think that the author addressed the criteria very well. For instance, Criteria 1 should concentrate on the importance of aquatic resources and fish to the parks involved, but paragraphs 2 and 3 (except for the last sentence) are not relevant to that. Similarly in criteria 3, the first paragraph discusses EDCs as a problem, but I want to hear that you have the information and organizational structure in place to make this project efficient and productive.

Winner of the tree killer award. 60+ pages is a bit much.

Transferability - I am tempted to score this criterion higher because of the multiple parks involved, but when I consider NCPN parks without bass the actual number of parks involved would be small.

Assessment of Best Management Practices on grazing lands at Point Reyes National Seashore	
CATEGORY: Intensive	PARK: Point Reyes National Seashore (PORE)
STATE: CA	FY14 COST: \$99,923

Comments:

Criteria 1 - Does not describe how the resources are described in the parks enabling legislation, or the park priority for this project. The description of Secretarial involvement is good.
Criteria 2 - Describe the 303d listing and TMDL! I know from experience with this park that ranching/dairy operations are one of the most significant impacts in the park and a major challenge for park management. This should be stated explicitly along with how it is addressed in park management plans.
Criteria 8 - Park support is 15.3% of total project cost of \$354,200.
Criteria 9 - Not addressed. Good score is based on text.
Well designed and straight forward.
My greatest concern about this proposal is that it does not explicitly state that the park and RWQBC are willing to modify the BMPs and revisit the TMDL analysis based on the results of this study. It is implied and stated that this information will be useful do decision makers, but the language is too soft. Say that there is active agency involvement, a solution process in place and high agency desire to correct this pollution problem. This will raise scores for criteria 3 and 4.
Nice to be in a position to test BMPs with actual known uses.
Nice proposal very clear and concise. There doesn't seem to be much NPS involvement through
Budget - I am concerned that the cost of "Storm Sampling" (at about \$10k/event) is high. Can you provide some additional explanation so readers can understand this cost?

Consequences of Climate-driven Changes in Water Quality to Native Trout Habitat

CATEGORY: Intensive

PARK: Rocky Mountain National Park (ROMO)

STATE: CO

FY14 COST: \$99,971

Comments:

Criteria 1 - The treatment of aquatic resources and wildlife in the park enabling legislation is not mentioned. Also, what is the park priority for this project?

Criteria 2 - Are park waters near the downstream thermal limits for these fish?

Nice integration of ongoing projects and existing data sources.

Criteria 4 - Would score higher if the park is considering specific management actions to mitigate temperature/climate impacts on the fish.

Criteria 8 - In-kind support of \$162k is 35% of Total Project cost of \$462k.

Assess Drivers of Fish Mercury Body Burdens to Inform a Decision Regarding Artificial Water Level Management for Voyageurs National Park Lakes

CATEGORY: Intensive

PARK: Voyageurs National Park (VOYA)

STATE: MN

FY14 COST: \$99,988

Comments:

Good project, good description, scores well. Excellent connection with current management issue and possible actions to, at least potentially, resolve some of the problem.

Scientists involved are well qualified

Consider adding fish health endpoints rather than just tissue concentrations of Hg

It's a bit counterintuitive that mercury body burdens in young of year perch would show significant Hg variation (single years growth & Hg accumulation) and therefore useful in meeting project objectives in absence of bioaccumulation or biomagnification. Thus some additional rationale or actual ranges of mercury body burdens should have been provided and a better explanation why presumably low body burdens in young of year are sufficient to meet objectives (what is the range of values seen in mercury body burdens from lakes with water level fluctuations as opposed to those without water level fluctuations? There was indication of some past data that the accumulation of one year's body burden was of utility but examples of actual values was not provided.

Consider adding fish health endpoints rather than just tissue concentrations of Hg

Proposal was very clearly written and easy to follow

Hydrologic Assessment of ALPO Summit area, Cambria and Blair Counties, PA – Collection of Baseline Water-Quality and Quantity Data on Wetlands, Groundwater, and Streams

CATEGORY: Synoptic/Fixed

PARK: Allegheny Portage Railroad (ALPO)

STATE: PN

FY14 COST: \$50,000

Comments:

There is some repeated text in the criteria that should be cleaned up.

A more complete description of management alternatives and how the range of results would influence would have strengthened proposal.

Project is timely and tied to a current problem so scores well.

Needs hydrogeologic (subsurface) data provided that would support potential linkage of mine pool waters under park to surface water bodies (e.g. depth to mine pools, geologic schematic, topo map showing mine workings/audits in area, local relief etc. to be more credible and inform reviewer). In the "summit" area described, one would expect very little interaction between surface water and deeper groundwater of mine pools unless data was provided to suggest otherwise. It was not made clear that subsurface mine pools are actually higher in elevation than some surface water bodies in area and what the surface water groundwater interactions are likely to be to suggest surface water bodies would be contaminated.

Source-Tracking Enteric Bacteria in Surface Waters and Sediments of Congaree National Park

CATEGORY: Synoptic/Fixed

PARK: Congaree National Park (CONG)

STATE: SC

FY14 COST: \$74,750

Comments:

Management action ranges need more detail to determine if project meets the need.

Fecal bacteria levels in natural waters are notoriously variable, and, as you note, responsive to storm runoff events and changes in turbidity, so it seems like 2 sample runs per year is a very low number. I know that this is kept low to keep costs within limits, but is there a possibility to reduce the number of sites and increase the number of sample runs?

Higher score for transferability due to potential for method development.

I see two major questions regarding fecal indicator bacteria: (1) the quantity present with respect to regulations, and (2) the source. This project is addressing 2, but why not also the regulatory compliance? The regs are written for E. coli and the lab costs for that is relatively cheap. The state will require a minimum of samples per site, and that will be something like 5 in a 30-day period. It sounds like the earlier work indicates that E. coli levels are very high so there is a high likelihood that the water could be listed on the 303d list and the state would have the responsibility to determine the source as part of their TMDL. I am not saying that the source tracking is not useful, but I think that getting the 303d listing is more important in working toward a solution.

Project support not detailed enough to rate effectively.

Seems a bit ambitious given stated level of funding.

Nicely written proposal.

Hydrocarbon Monitoring in Response to Personal Watercraft Regulation at Glen Canyon National Recreation Area	
CATEGORY: Synoptic/Fixed	PARK: Glen Canyon National Recreation Area (GLCA)
STATE: AZ-UT	FY14 COST: \$50,000

Comments:

Basic information will result. Is there a tie to current decision frame for regulation which this will directly influence?
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Improving the Water Quality of Cub Creek: Using Real Time Continuous Data and Engaging the Next Generation

CATEGORY: Synoptic/Fixed

PARK: Homestead NM of America
National Monument (HOME)

STATE: PA

FY14 COST: \$50,151

Comments:

Project support - The total project cost (USGS + partners) = \$269,100, so project support is 44% of TPC.
Better description of ecoli sources in watershed would have been helpful along with a map of watershed with potential sources/densities as well as for upstream lake.
Page 2, paragraph 1, the average of E. coli levels is presented, this should be the geometric mean rather than an arithmetic mean.
What efforts have been made to date to change 'partner' land management practices?
In the 4th paragraph, page 2, there is reference to full-body contact recreation; is this the standard that is applied to this stream by the state? Even if the water does not meet the recreational standard, your magnitude of threat is much lower if the recreational standard is not being applied to that stream. What is your potential for recreation in the stream if it were clean?
You give emphasis to the threat by saying that people do not enter the creek, so if you don't have much in-water recreation, describe the potential. As is, it appears that water-based recreation is not very important.
Problem Definition - what are the state designated protected uses for this stream?
Problem resolution - this is weak. Where is the state with this problem? They are the regulatory authority.
If the upstream lake water quality (E.coli levels) is not addressed first by other parties it is unclear how Cub Creek water quality is likely to be improved.
Effective way to collect and communicate trends and engage public.
Add to your objectives "To establish a data record sufficient to support a 303d listing of Cub Creek for E. coli and total phosphorus should the results indicate that a listing is warranted. " This will require a minimum sample frequency as described in the state regs. If a designation is made, the state will have a responsibility to develop an action plan for cleaning up the creek.
Budget seems generous.
Didn't count past volunteer hours.

Historic Coldwater Spring: Assessing Water Quality for Public Health and Ecological Protection	
CATEGORY: Synoptic/Fixed	PARK: Mississippi National River and Recreation Areas National River (MISS)
STATE: MN	FY14 COST: \$50,001

Comments:

General potentiometric surface map with depth to groundwater for area would have been helpful. This spring with groundwater shed in urban area may never be deemed safe to drink due to all the past releases and residual contamination and associated releases from fine grained materials that will likely last a long time (i.e. legacy plumes and residual matrix contamination)
The spring is not a stated source of drinking water so the urgency is in question.
Threat score suffers because I believe that park already has enough information to determine that the spring is under the influence of surface water and never will be considered safe for drinking. The high chloride levels and dye trace are very strong evidence, perhaps stronger than finding other contaminants or indicators in periodic sampling. That said, having a groundwater basin that drains a major metropolitan area is a compelling reason to institute an assessment and monitoring program. I suggest giving stronger weight to establishing a rigorous baseline for long-term monitoring. Also, depending on the state rules for outstanding national resource waters, this data could be used to support site-specific water quality standards for this spring.
The criteria justifications are generally way too wordy; please limit these to 200 words or less.
The maps are good. I notice in Figure 2 an industrial operation (sand and gravel?) in the north end of the unit; why is this not mentioned in the proposal?
Problem resolution - using existing information, the park could post the spring as surface influenced, and therefore possibly contaminated and not safe for drinking. I doubt that that message would change very much after completion of this project.
Inclusion of spring in state statute is a benefit for significance score.
Project support - The total project cost (USGS + partners) = \$214,140, so project support is 30% of TPC.
Scientific Merit - not addressed. Project applies sound scientific practices so I score it a 3.
The proposal is nicely written.

Monitoring Concentrations of Emerging Organic Contaminants and Nutrients at Inflow and Outflow Sites of Lake Mead, Nevada and Arizona

CATEGORY: Synoptic

PARK: Lake Mead National Recreation Area (LAKE)

STATE: NV

FY14 COST: \$50,000

Comments:

Following criteria guidance would have helped scoring.
I do not find a summary of the results of previous EOC sampling. This is a major weakness that lowered the scores for Criteria 2 and 3.
The second paragraph in the Objectives (top of page 5) shows that the path to the solution for these problems is indirect and uncertain. Too much use of "may."
Criteria 1 - This is weak on explaining the significance of water quality and the affected biota to Lake Mead. Should cite the enabling legislation if it is pertinent, park management objectives, number of visitors and number of water users. The second sentence is unclear.
Criteria 3 - My interpretation of what is intended in this criteria is an explanation of why you are ready to proceed with this project. How good is your understanding of the problem, is the information base adequate to take the next step, and also do you have the expert personnel, opportunity and equipment in place to proceed? A big bonus would be where park management and regulators are ready to take action to correct the problem.
Criteria 4 - very low score here because it does not appear that mechanisms are available to resolve the problems. The first sentence mentions management actions; please explain what these might be.
Criteria 9 is not addressed. Scientific merit appears sound so I scored it a 3.
Overall impression is that proposal is long on generalities in its support and short on specifics
Seems that the limited sampling frequency coupled with affects of seasonality will lead to high uncertainty of any results.
Has park committed to using data for a particular EA/EIS or regulation/compendium?

Is the Mixing Regime of Crater Lake Likely to Change in a Future Climate?	
CATEGORY: Tech Asst	PARK: Crater Lake National Park (CRLA)
STATE: OR	FY14 COST: \$50,000

Comments:

I ranked this high due to the uniqueness of the resource, the rich data sets and the proposed outcomes.
Criteria 3 - Having a post-doc lined up and ready to work on this should be included here.
Nice project to make some progress and inform a research proposal.
Criteria 8 - Including \$5M of past monitoring is a bit generous, but even without it the other in-kind support amounts to 71% of the total project costs, so the score is the same.

Assessment of Hydrologic and Water-Quality Characteristics of Karst Areas within and Near the Great Smoky Mountains National Park	
CATEGORY: Tech Asst	PARL: Great Smoky Mountains National Park (GRSM)
STATE: TN-NC	FY14 COST: \$50,000

Comments:

Criteria 3 - It is implied that the NPS Inventory and Monitoring Network will adopt the "vital signs" monitoring sites recommended as outcome from this project. If this is indeed the case, then saying so would be an asset to this criteria.

Temperature Regime, Water Quality, and the Potential Distribution of Aquatic Invasive/Exotic Species in Grand Teton National Park	
CATEGORY: Tech Asst	PARK: Grand Teton National Park (GRTE)
STATE: WY	FY14 COST: \$35,400

Comments:

The urgency was not demonstrated in this proposal
Criteria 4 - Problem resolution could be better. I am wondering if the park currently has the site signed to discourage introductions of exotics (maybe it is in the proposal and I missed it), or does the park do any other outreach along these lines? Also, what are the prospects for removing exotics from the spring? Has the park attempted or succeeded in doing this?
The biological inventory is supposed to be conducted by the Teton Science School and others. What are their qualifications? Have they committed to do this project? I know that they are located very nearby, but I don't see that mentioned in the proposal. Also, their contribution is not included in the in-kind contribution to the project. Clarifying this matter would improve the scores for Criteria 3, 4, and 8.
Criteria 9 is not addressed. Score based on the body of the proposal.

Stormwater Runoff and Potential Impacts to Receiving Waters in Mt. Rainier National Park

CATEGORY: Tech Asst

PARK: Mt. Rainier National Park (MORA)

STATE: WA

FY14 COST: \$50,000

Comments:

The strength of this project is that it addresses a valid basic-science question about the impact of stormwater runoff. However, I think that the link to management actions is weak because the park does not need the results of this project in order to implement stormwater BMPs. They should be incorporated in planning and design for paved surfaces already. (The whole point of having BMPs is so you don't have to scientifically prove harm every time before doing the right thing.)

Goals and objectives are ambitious given stated level of funding.

Largest WQ impact is likely to be increased sediment load so turbidity tied to SSC should be evaluated in at least one small watershed

Criteria 8 - I calculate Project support at 19.7%. (12,328/62,328)

Determination of Existing Water Quality in Selected Tributaries to the Upper Delaware Scenic and Recreational River through Collection of Additional Discrete Water Samples and Installation of Continuous Water-Quality

CATEGORY: Tech Asst

PARK: Upper Delaware National Scenic and Recreation River National Wild and Scenic River (UPDE)

STATE: NY-PA

FY14 COST: \$50,000

Comments:

Don't the gas exploration companies have to do some sort of environmental review prior to work that could involve funding for this type of work.

Solid project that is timely.

Gathering the data prior to landscape changes is worthy cause.

Comparing Trace Metal Concentrations in Water and Pectoral Fin Rays to Assess Lake Sturgeon Populations in Voyageurs National Park, MN

CATEGORY: Tech Asst

PARK: Voyageurs National Park (VOYA)

STATE: MN

COST: \$50,000

Comments:

Nice idea to use existing biological tissues, but it is not clear how you could determine natal ranges with current water samples if the fish samples are not from within a close time range.

I assume, but did not see it stated, that the archived fin rays have location metadata sufficient to tie them to a source water.

Criteria 4 - What are the prospects for having the Canadians change plans based on NPS arguments? The score would improve if you could cite a cooperative working relationship or some commitment on their part to avoid impact to the fish.

Ambitious given the funding requested.